

hæc corporis molem habeat, illud non habeat : Quoniam quoad altitudinem (secundum quam comparantur) Homogenea sunt, utut alias Heterogenea. Dum vero ille, ad Æqualitatem aut Inæqualitatem requiri docet, *ut juxta corporis molem comparentur* ; tu mecum juxta judicabis, credo, hoc minus sanum esse. (Sufficit utique ut juxta Longitudinem, Latitudinem, Altitudinem, angulum Inclinationis, Curvedinem, Durationem, Numerum, Vim, Pondus, Celeritatem, aut aliud quodcunque demum fuit quantitatis genus comparentur, quod utrique comparatorum commune sit ; non minus quam juxta molem corporis.) Vides itaque quo tendunt ipsius *nova principia*, *hucusque nondum tradita*, quorum hoc unum est.

An Account of some Books.

- I. OLAI BORRICHII, *Medici Regii, & in Acad. Hafn. Prof. publ.* De ORTU & PROGRESSU CHEMIÆ *Dissertatio, in small 4o Hafniæ, 1668.*

THIS Author makes it not his maine business in this Book to shew the progress of the Performance and Effects of Chymistry, and to what pitch men are arrived thereby, to evince its great usefulness both in Physick and the Discovery of Nature (though he toucheth something of both ;) but he chiefly informes the Curious of its first Original, and Progress from place to place, how it sprung up and flourished in *Ægypt* ; passed thence, into *Greece*, *Italy*, *Arabia*, *China*, *Spain*, *France*, and all *Europe*. And because *Conringius* and *Ursinus* do mainly interpose in this Progress, he endeavours to remove the rubbs, which they cast in the way.

Here and there he inserts some Observations, which would be considerable enough, if they might be relied on. E. g. About *Metallick Germinations*, where he relateth one of them, very admirable, seen by one *San-Simon*, to whom he giveth the Character of a man of great veracity, and of no credulity ; who living about 25 years agoe at *Brussels*, was visited by a stranger, who having prefaced to him, what some had told him of his curiosity and ingenuity, as well as of his incredulity concerning
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the celebrated great things perform'd by Chimiſtry, ſaid, that, to convince him, all was not vain what this Art profeſſed, he did herewith truſt him with a ſmall powder, ſcarce of the weight of a Barly-corne, on condition, that after the proceſs, he was to make with it, in 6 houres time, he ſhould return it to him. This proceſs was, That he ſhould take 3 or 4 *l.* of Fountain or River-water in a Glaſs, and caſt this powder into it, and by frequently ſhaking the Glaſs, make ſomething of the powder incorporate with the water. Then, after ſome hours, he ſhould decant the liquor into another Veſſel, and dry the powder. All which the ſaid *San-Simon* performed. The ſtranger being return'd at night, taketh his powder again, and bids *San-Simon* to put ſome ounces of common *Mercury* into the impregnated Water, and to look for a beneficial germination, when he was gone. Eight ounces being put in, after a little while there were ſeen to riſe by little and little out of the *Mercury* a thouſand ſmall Silver-like branches or threds, ſpreading themſelves every where through the whole Liquor, and ſhooting up even above the ſurface of the Water, on which appear'd here and there an oleoſity, that was taken off, as being ſome matter of a groſſe excrementitious nature, and heterogeneous to the ſubſtance it ſelf of the *Mercury*, hindring the coagulation of the *Mercury*, but being remov'd, the *Mercury* runs and ſticks cloſe together, and becomes a firm Mettall. *San-Simon* having powred out the liquor into another Glaſs, gather'd the branches, and found them by the beſt Goldſmiths of that place eſteem'd very excellent pure Silver, after the ſevereſt examinations by Fire. After this, *San-Simon* poures new *Mercury* to the remainder, and ſees a new *Wood* ariſe like the former, very pure Silver likewise; repeating it to the ſixth time, alwayes with good ſucceſs, yet ſo, that by degrees the liquor grew languid, and at laſt was quite deprived of its force: many perſons flocking in, and beholding the wonder.

A nother Obſervation is of a *Ductil Salt*, ſaid to have been made by himſelf of *Sal Armoniack*, often diſſolved in a large Glaſs, and frequently and ſlowly Chryſtallified, whence at length proceeded Chryſtals as long as the Veſſel was large; ſome of them being at times 6 inches long, flexible, and apt
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to be restored again into a streight line; This he illustrates by that substance, call'd *Cornu Lune*, which is nothing else, but Silver, whose texture is changed by the particles of acid Spirits, which is fusible at a Candle, and sequacious, and may be reduced into small leaves, transparent, and somewhat obedient to the Hammer. Farther, having taken notice that Glafs is a very brittle body, because the surfaces, according to which its particles touch one another, are exceeding small; he excites Mens curiosity, to labour after a way, whereby the parts of Glafs may be comminuted into such small parts, as to touch one another in many points, and that then malleable Glafs will not be hard to make: All which he concludeth with examining Dr. *Merrets* Arguments, produced by him in his *Ars Vitraria* Englished; desiring that it may be made out, how the different figures of the Salts and Sands can remain unchanged by the violence of the Fire?

Besides, he relateth to have reduced Venice-glafs into an *Alcohol*, and upon pouring hot distilled water upon it, drawn a small quantity of Salt out of it, (not a hundred part of the body of the Glafs) of an unlike Figure to the Salt, which entered into the composition.

He examin's also, whether common Salt may be changed into Vitriol, Alum, Niter. Some (among whom is *Kircher*) esteeming that the common Salt, according as 'tis variously tinged by Minerals, is sometimes converted into Niter, sometimes into Alum, sometimes into Vitriol, and yet may be reduced into common Salt again. But our Author finds not this in Laboratory's, but that Niter by a flaming fire degenerateth into an acid liquor; being burnt by coals, into a Lixiviat Salt highly different from the nature of Common Salt; if heated with sulphur by an intense Fire, blown with Bellows in a close Vessel, into Stone; but hitherto by no art into common Salt. He thinks, *Kircher* has been deceived by this, that the Spirit of Niter being poured on Salt, maketh Crystals again in the appearance of recover'd Niter: But he saith, that this esculent Salt seems to be Niter, but is not. For, saith he, that any Niter results thence, is not to be assign'd to the Salt, but the Spirit of Niter, *i. e.* to the attenuated particles of
S f f f Niter,

Niter, conjoyning themselves again by means of the Salt, to resume their pristine forme. Nor will Niter (*adds he*) or Alum, or Vitriol, if well purged, ever return into common esculent Salt.

Yet this he grants to *Kircher*, that common Salt will turn into Niter, Alum, and Vitriol, when it hath changed its particles by the motion of subterraneous Fires, and so being comminuted into small particles hath converted its former Salt-taste into a present acid one, yet so as that for the composition of Niter there must be mixt some *ramenta* of Lixiviat Salt; for that of Alum, some *ramenta* of Lead; for that of Vitriol or Copperas, some of Iron or Copper.

Yet however this be, he denies, that there should lye concealed in the Center of common or Nitrous Salt any thing; that is unchangeable, coagulating and fixing all things; because an Artift can without any great difficulty bring both these Salts wholly over the Helme, and reduce them into a volatil Spirit, with but a very little sediment left behind; and can also reduce them both into an insipid Earth destitute of all vertue or operation, but only that, which is a little (but very little) adstringent; as may be seen by *Blasius Vigenere*, in his *Traët de igne & Sale*, but by his own Experiment affirmed to have been often and easily made; so as that the most purifyed salt, having its pungency obtunded by a fit and often repeated fire (whereby it may be often freed, dissolved, coagulated) will affect the tongue no more, than common Potters Earth.

Here he censureth, what *Kircher* affirms in his *Mund. Subterr.* viz. That in salt, how much soever depurated, there will be found a true Earth, which though seemingly destitute of all salt, yet being for some dayes exposed to a clear sky and the *Sun*, will be again impregnated with new salt. To which he declares, that if *Kircher* had continued his method of purging salt to the utmost, he would have found, that the whole body of salt would have been at last thus changed into a saltless Earth, altogether inefficacious, save a little adstringency; directing withall, that he should have farther burnt the Earth, which he thought destitute of all salt, thoroughly, and

and boiled it in water, till it had altogether put off its salin taste, and that then he would have found, it would not have imbibed salt anew, any more than any other body calcin'd. 'Tis true, *saieth he*, seeing the Air is full of salin steames, it cannot be otherwise, but that that cadaver of salt, having admitted the impressiion of the corpuscles flying in the Air, will taste saltish upon the Tongue, as all other bodies, that have past the fire, will do the like.

He relateth further, that two yeares agoe, when he was at *Rome*, in *Clivo Scauri*, there was digg'd out a whole house, which for above 10 Ages had been buried, from under the roots of herbes in a Garden of a Cittizen, a House of a very handsome structure, of *Corinthian-work*; and that there he met himself, among the *rudera*, very many *vasa lacrymalia* of Glasse, which by length of time were become laminated into divers leaves, beautified with pavonaceous colour: the places like o Muscovy-Glasse, fissil into leaves.

He maketh also mention of a vegetable seed, very common in the Fields of *Denmark*, which having been once heated red-hot, and then taken out and put in a cool place, would remaine hot and burning for fifty Houres together.

He describes also the method, which a certain Abbot, call'd *Boncaudius*, used to obtain a *perpetual Heat*; which was, that he thrust into the Earth a Pike of about 20 foot long, and having thereby made a deep hole, (which was to be secured from the falling in of other matter) he poured into it ten pounds of *Mercury*, which by its ponderosity and the yielding of the subjacent soft Earth (for if that were hard and stony, or had springs of water, the effect was not like to follow) would continually sink lower and lower, and in some Moneths time insinuate it self into the lowermost parts of the Earth, and there meet with the Chambers of the subterraneous Heat; which issuing forth through that hole uncessantly, would moderately warm and cherish whatever should be placed over it; and so furnish us with a perpetual spring of warmth. Which device seems to our Author to be countenanced by what *Aco-sta* relateth *Hist. Ind. l. 3. c. 19.* viz. That in *Guancavelica* in

Peru, whence is extracted store of *Quicksilver*, there is a perpetual spring of Hot Water; and that not only it is a common complaint there, that the cataraacts and fences of the Millers (whereby the water, necessary to drive the Mills, is kept in, that it may be sufficient for the work) are pierc'd through by *Mercury*, at times thrown in by malicious persons, to the great detriment of the Water and Mills; but also that 'tis notorious, that in some places there are deep under-ground Stoves and Pitts, which, when all others are frozen, steam out of their midst a tepid fume; the inward Bowels of the Earth thus constantly furnishing matter for calefaction, &c.

II. *An IDEA of the perfection of PAINTING: originally written in French by Roland Freart Sieur de Cambray, and rendred English by J. Evelyn Esquire, Fellow of the R. Society.*

THis excellent *Idea*, very lately come out of the *London*-Press, in thin 8^o, is drawn in that manner, as that 'tis demonstrated from the *Principles* of *Art*, and by *Examples* conformable to the *Observations*, which *Pliny* and *Quintilian* have made upon the most celebrated Pieces of the *Antient PAINTERS*; parallel'd with some works of the most famous *Modern Painters*, LEONARDO da VINCI, RAPHAEL URBINO, JULIO ROMANO, and N. POUSSIN.

Those Principles of Art, constantly observ'd by the *Antients* in their Works, are here enumerated to be five: 1. *Invention*, or the *History*. 2. *Proportion*, or *Symmetry*. 3. *Colour*, (wherein is also contain'd the just dispensation of the *Lights* and *Shades*.) 4. *Motion*, in which are express'd the *Actions* and *Passions*. 5. The regular *Position* of the Figures of the whole Work. Of which the *Invention* and *Expression* are more *Spiritual* and *refined*; the *Proportion*, *Colouring*, and *Perspective* the more *Mechanical* part of this Art.

The Works, made use of among those of our most eminent *Painters*, for applying those *Principles* unto, are 1. the *Judgment of Paris*. 2. The *Massacre of the Innocents*. 3. Our *Lords descent from the Cross*, all three by *Raphael*. 4. The *last Judgment* of *Michael Angelo*. 5. The *Representation*

sentation of a *Vast CYCLOP* in a narrow *Table* by *Timanthes*. 6. *Imitation of the same kind* by *Fulio Romano*. 7. The *Gymnasium* or *Academy* of the *Athenian Philosophers*, by *Raphael*. 8. The *seven Sacraments* by *Poussin*, the *real Parallel* of that famous Master-piece of *Timanthes* upon the *sacrifice of Iphigenia*.

All this is now represented in *English* with so much perspicuity, and rendred so weighty by every Period of the Excellent Interpreters addition, that it justly deserves high recommends, and will doubtless animate many among us to acquire a perfection in Pictures, Draughts and Chalcography, equal to our growth in all sorts of Optical Aydes, and to the fulness of our modern Discoveries. *Painting* and *Sculpture* are the politest and noblest of Antient Arts, true, ingenuous, and claiming the Resemblance of Life, the Emulation of all Beauties, the fairest Records of all Appearances whether Celestial or Sublunary, whether Angelical, Divine or Humane. And what Art can be more helpful or more pleasing to a Philosophical Traveller, an Architect and every ingenious Mechanician? All which must be lame without it.

III. STEREOMETRICAL PROPOSITIONS, *variously applicable, but particularly intended for GAGING,* by ROB. ANDERSON: Printed in small 8°. 1668. LONDON.

WHAT the Poet once said of a Gardner,
Sæpe etiam est Olitor valde opportuna locutus,

May congruously, in consideration of the Authour of this Book, be thus altered without marring the Verse;

*Quandoque est Textor * valde opportuna locutus.*

* The Author
being a Silk-
weaver.

And as 'tis observable, that sometimes among Tradesmen and others *de plebe*, are found very intelligent and sagacious persons, excelling others, that have consum'd their whole life in publick places of Learning, so should they awaken all, that profess the study of Arts and Sciences, not to dwell for
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ever in useleſs Notions and inſignificant Generals, but to ſearch after the Knowledge of thoſe things which really enoble and enrich the Mind, and are beneficial to the Life of man. But, this *by the by*: The Book it ſelf contains 25. conſiderable Propoſitions; to touch ſome of which, we ſhall take notice, that

The 1. is to find the ſolidity of *Pyramids* and *Cones*, or *fruſtum Pyramids* and *Cones*, applicable to the Meaſuring of all Solids or Veſſels of that form; whether whole or in part, or gradually, *i.e.* foot by foot, or inch by inch.

The 2^d and 3^d, may be apply'd to the meaſuring of irregular Solids, and uſeful for the exact meaſuring of all ſorts of Stone and Timber; alſo of all ſorts of *Elliptick*, *Parabolick* and *Hyperbolick* irregular Solids, or Veſſels made of that Form; ſeeing that ſuch Solids may be cut into *Parallelepipedons*, *Prifmes* and *Pyramids*, and then reduced to their own nature by the proportion of the *Parallelogram*, adſcribed about thoſe Figures, to the Figures themſelves.

The 4th ſhews the meaſuring of *fruſtum Pyramides*, when their *Baſes* are not parallel.

The 5th is about the relation of the *Sphere* and *Spheroides*, to the *Cylinders* of their *baſes* and *altitudes*, as well of the parts as the whole.

The 6th hath the meaſuring of the *midle Zone* of a *Sphere* and *Spheroides*: And in regard that the *midle Zone* of a *Spheroides* hath been generally taken for the Figure repreſenting a *Cask*, the one being meaſured, the other will be ſo alſo.

To paſs, with the Author (in the Application of his Book) to the 12th *Propoſ.* there is the meaſuring of a portion of a *Sphere*, which is applicable to the meaſuring of the inverted Crown of Brewers Coppers, or ſeveral other uſes.

The 13th gives the meaſuring of *Parabolick Conoides*, which may be taken for a Brewers Copper, the Crown inverted.

The 14th meaſureth the *Hyperbolick Conoid*, which may be taken for a Brewers Copper.

The 15th, 16th, 17th, and 18th give the meaſuring of a *Sphere*, *Spheroid*, *Parabolick Conoid* and *Hyperbolick Conoid*, as well the whole as their parts.

The 20th meaſureth *Circular* and *Elliptick Spindles*.

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The 21. measureth the 2^d Section in a *Sphere* and *Spheroid*, which may be of use to measure the *middle Zone* of a *Spheroid*, cut by a *Plane* parallel to the *axis*; i. e. when the superficies of the liquor cuts the head of the Cask.

The 24th measureth right *Cylindrick Hoofs*, viz. *Circular*, *Elliptick*, *Parabolick* and *Hyperbolick*, and may be used for the measuring of Brewers leaning Vessels.

To these is added a Table of *Squares* and *Cubes*, very useful in finding the portions of a *Sphere*, *Spheroid*, *Parabolick* and *Hyperbolick Conoides*.

IV. ELAPHOGRAPHIA *sive Cervi Descriptio Physico-Medico-Chymica*, Auth. Joh. ANDREA GRABA, Med. Doct. Erfurtens, & Collegii Naturæ Curiosorum Socio. Jenæ in 8^o. A. 1668.

IN this small Tract is delivered out of the best Writers of this Subject, and the Author his own practice and observations, the Nature, Qualities, and Uses of the *Stagg*. In it is particularly considered the Longevity of this Animal, and its cause conjectured at, viz. the plenty of a Balsamick preservative Salt, with which 'tis said Nature hath stored this above many other Animals: Then the successive growth and annual casting off of its horns, together with the causes thereof, is examined, viz. its superabundance of Salin Juyce protruded, and then condensed by the Air (witness the great plenty of volatil Salt, that may be obtained out of those Hornes, as well as out of the blood and urine of the *Stagg*;) which matter being continually furnished from the body of the Animal, and passing unceasingly to the head, forceth away the old horns, and yearly substitutes new in their room.

But the Author chiefly and largely insists on the several uses of the parts of a *Stagg*, which he finds to be very many, and of divers kinds, viz. Ornamental, Mechanical, Culinary and Medicinal. Among the *Culinary*, he commends the young downy horns for a very delicious dish, used by the Grandees. And, as to the *Medicinal*, he enumerateth a vast number of them, especially of the volatile Salt, spirit, Oyle, Magistery, made of the several parts of the *Stagg*; where he inserts the particular uses of the

Stag's

Stag's tears, blood, urine, dung; taking from the two latter occasion to commend the Medical usefulness of the Excrements of all sorts of Animals, as that of Swallows for the Colick; of Peacocks, for the falling sickness; of Dogs, (which they call *Album Gracum* for a disguise) against the Angina; of Hogs and Asses against Hæmorrhages; of Cows, against the stings of Bees and Wasps, and other Inflammations; of Horses, against the Colick, Plurisie, Suffocation of the Matrix, expulsion of *Fætus*, and the secundines; and that of Men, against the Plague, &c.

But the Principal uses in Physick, for which he commends the volatil salt and spirit made of the horns and blood of *Stags*, is, its piercing, opening, attenuating, absterfive, discussing vertue.

He interpereth here and there, as he hath occasion, many Philosophical and Spagirical remarques: *e.g.* How all Acids change the nature of volatil Salts: How nature produceth the volatil Salt out of Acids or fixed Salts: How plants, and divers parts of Animals may by their volatil Salts be Chymically represented: by what method the volatil Salt of Harts-horn may be freed from its ungrateful smell, without much impairing its vertue: why Harts-horns taken off from the beast between the middle of *August*, and that of *September*, yield more and stronger spirit: whether Harts-horn be better and more efficacious, when calcined, or crude, or prepared by a steamy heat? &c.

And among the many Medical prescripts, set down here, the Author gives us the *Podagrick unguent* of the so much famed *Franciscus Jos. Borrhi*, made up of almost all the parts of a *Stag*: which how far it deserves commendations, must be learn'd from experience.

V. A Discourse of SPEECH, originally written in *French* by MONSIEUR CORDEMOY, now *Englished* in 12°. This Discourse, written conformably to the *Cartesian* Principles, hath been formerly given an account of, *viz.* Numb. 37. p. 236. and is only mention'd again here, because of its being now rendred *English*, for the use of those that are not skill'd in the *French*.

Errat. p. 766. l. 3. del *so*. p. 776. l. 14. read *ta*. ib. l. 24. r. *quin*. p. 778. l. 1. read *tem*.

In the S A V O Y,

Printed by T. N. for John Martyn, Printer to the Royal Society, and are to be sold at the Bell a little without Temple-Bar, 1668.